Technical Features .....

	FTR-700H/D2	FTR-700H/P8	TRM-700	RTU-700	MDP-200
Frequency	ISM	ISM	ISM	UHF/VHF	UHF/VHF
Supply Voltage	12-24Volt	12-24Volt	12-24Volt	12-24Volt	12-24Volt
RF output Power	10mW	10mW	0,1 - 6W	0,1 - 6W	0,1 - 6W
RF Indicator	-----	-----	-----	LED	LED
Serial Ports	RS232/485	-----	RS232/485	0,1 - 6W	0,1 - 6W
Digital Outputs	-----	8 OC	-----	16 OC	max 128 OC
Digital Inputs	-----	8 Relais	-----	8/16 PNP	max 128 PNP
Analog Inputs	-----	----- (A)	-----	4 (A)	max 64
Analog Outputs	-----	----- (A)	-----	----- (A)	max 64
Timer	-----	-----	-----	8 * 16 Bit	-----
Counter	-----	-----	-----	8 * 16 Bit	-----
Expansion Port	-----	X	-----	X	X
Enclosure	DIN-Rail	DIN-Rail	DIN-Rail	DIN-Rail	DIN-Rail
Modbus RTU	X	X	X	X	X
Siemens 3964R	X	-----	X	-----	-----

(A) Can be increased by expansion modules

UHF/VHF: VHF=146-174 MHz, UHF=410-470MHz

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Radio Modems

Made in Germany

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RADIO MODEMS

Wireless Technology for Everyone

The possibilities offered by wireless technology today are underestimated by almost everyone, largely because of a lack of awareness about it. The latest radio modems of today allow convenient wireless data exchange far beyond the boundaries of rooms and buildings, without the need for expensive cabling and site preparation work. Radio modems can be used in fixed installations or in mobile applications. The choice of radio modems presented here range from 433 MHz ISM Band products, 500 mW remote operating frequency products, to wireless data communication products with 6W RF power output which require operating licenses. Communication distances ranging from 1 km to 50 km can be covered with these devices, depending on frequency band and technology.

Short Range ISM Wireless Modems

ISM Band wireless modems can be used without the need for licenses or payment of license fees. They are designed to operate at 10 mW RF power output, which allows communication over distances of more than 1 km. These wireless modems use the interference-proof FFSK modulation technique for error-free operation, even in difficult environmental conditions. They support wireless data communication at up to 2400 bits/sec. One of 64 specific frequencies in the ISM band can be selected via the modem's DIP switches. These modems are useful in a variety of applications, including effluent treatment plants, energy and environmental monitoring, vehicles, control stations, data acquisition systems, and many more.

Wireless Modems and Wireless Remote I/O Modules

In addition to Wireless Modems with RS-232 or RS-485 serial data interfaces (models FTR-700H/D1, FTR-700H/D2), a series of Wireless Remote I/O Modules (model FTR-700H/P8) is also available. The -/P8 series includes a Basic Module with 8 potential-free on-off inputs and 8 relay outputs, which can operate in a point-to-point link, or in a multi-station network. They can be readily integrated into SCADA systems. The I/O capacity of a Basic Module can be expanded by connecting one or more local Expansion Modules, with various on-off and analog I/O configurations. Up to 8 Expansion Modules can be connected to a single Basic Module.

Easy SCADA System Integration with MODBUS Protocol

The FTR-700H/P8 is particularly suitable for integration with SCADA systems that support the MODBUS-RTU protocol. The normal SCADA software can directly access the MODBUS registers of the FTR-700H/P8 through a wireless modem. Up to 240 Wireless Remote I/O Modules can be linked together in a single radio network.

the art of communication . . .

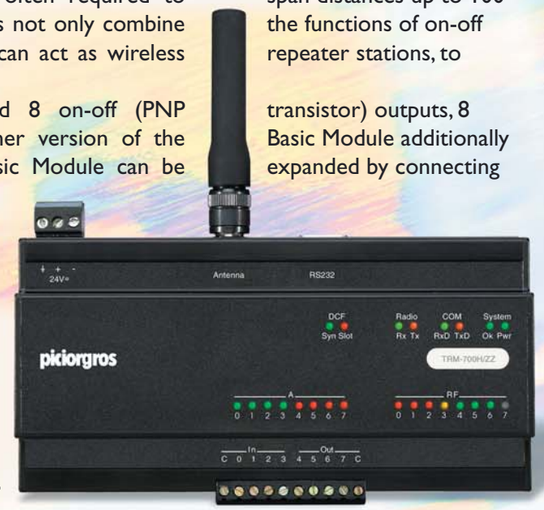
Choice of Protocols and Serial Interfaces

The TRM-700H Wireless Modem is available with RF power output of 500 mW, which requires no operating license nor payment of fees. It is also available in higher power versions with up to 6 W (ERP) power output, for longer transmitting distances. The higher power units require operating licenses. The TRM-700H is compatible with a variety of communication protocols: MODBUS-RTU, MoP (an enhanced version of MODBUS, optimized for radio communication), Siemens 3964R, ASCII, and Transparent Mode. Any of these can be selected by the user via DIP switches. RS-232 or RS-485 serial data interface is available. RF power output limit is user adjustable (within the specified power rating of the unit). Field strength of the received radio signal is indicated by an LED array. Model RAR-700 is a special version that functions as a radio repeater station. It can re-transmit standard MODBUS-RTU and MODNET-IF protocols.

Wireless Remote I/O Modules with Wide Applications Capabilities

Radio communication links used for monitoring waste water systems, fresh water supplies, gas and oil pipelines, voltage converting stations, etc., are often required to span distances up to 100 km. The RTU- 700H Series Wireless I/O Modules not only combine the functions of on-off and analog I/O and wireless modem, but also can act as wireless repeater stations, to extend communication distances.

The Basic Module has 16 on-off inputs and 8 on-off (PNP transistor) outputs, 8 counter registers, and 8 timer registers. Another version of the Basic Module additionally has 4 analog inputs. The I/O capacity of a Basic Module can be expanded by connecting Expansion Modules via a local bus. Expansion Modules are available with a variety of on-off and analog input/output configurations. Up to 8 Expansion Modules can be connected to a single Basic Module. Distributed I/O systems can be configured with up to 240 slave stations in a single wireless network, by setting distinctive station addresses via DIP switches. The RTU-700H is available with a choice of RF output power ratings.



RF power output limit can be set for each station, and measured values of received signal strength read, for each station, by remote wireless access from a central SCADA station. This allows the system to be quickly set up, without the need for additional measuring instruments. The RTU-700H Series are readily integrated with systems using third party software (SCADA applications, OPC servers, PLC-driver etc.).